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FIG. 1

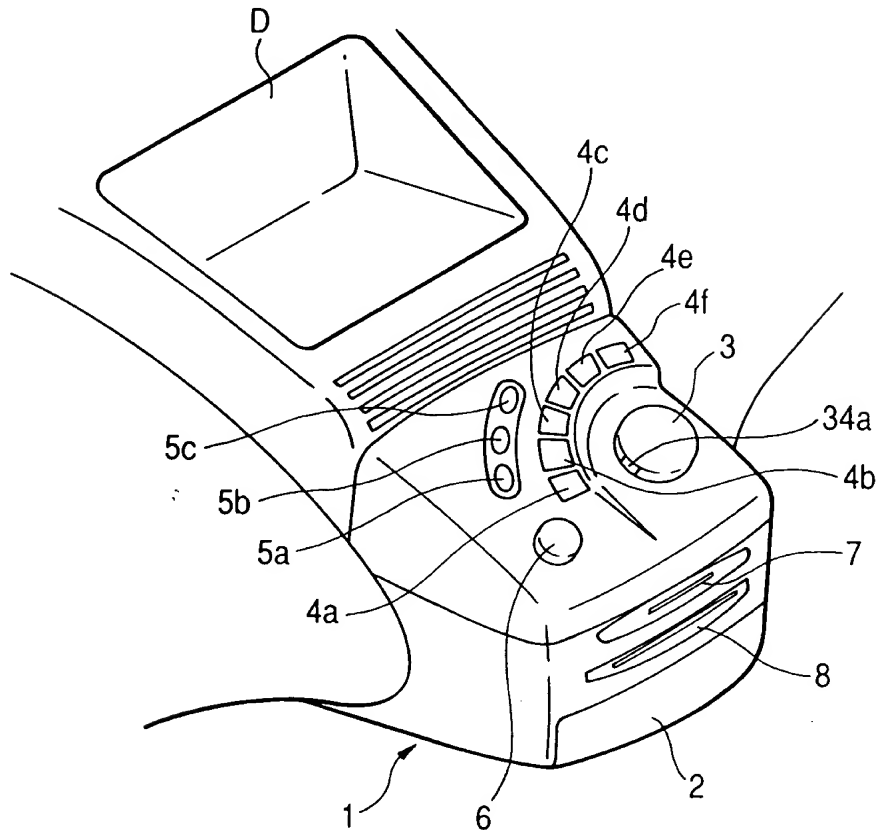
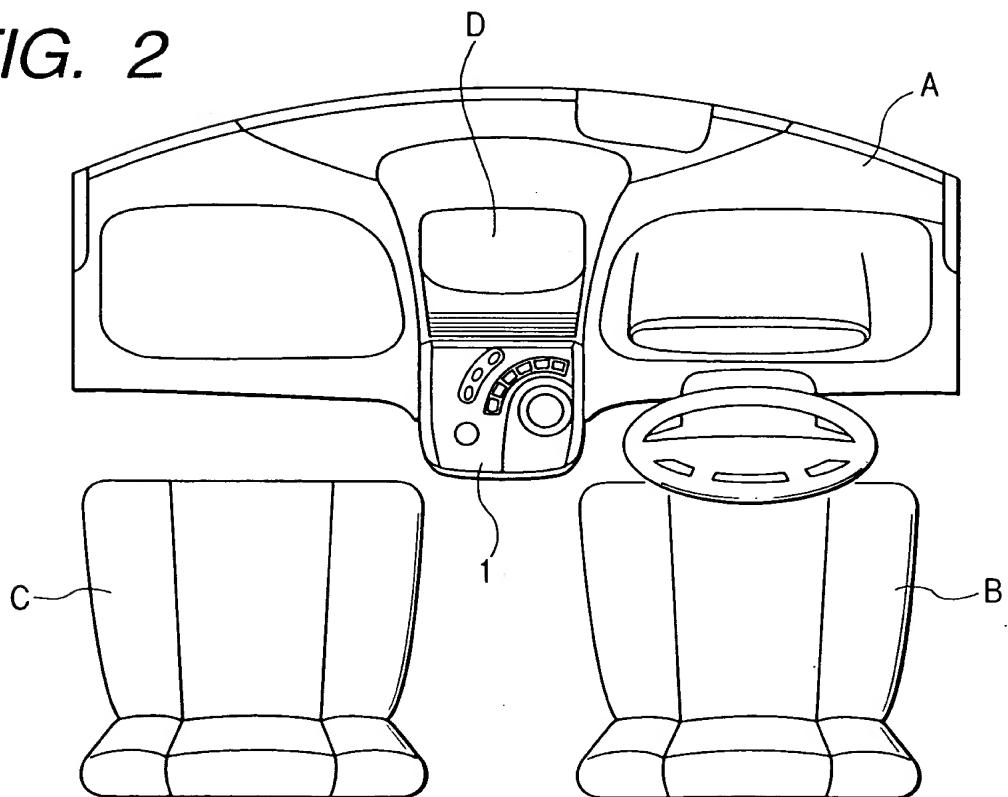
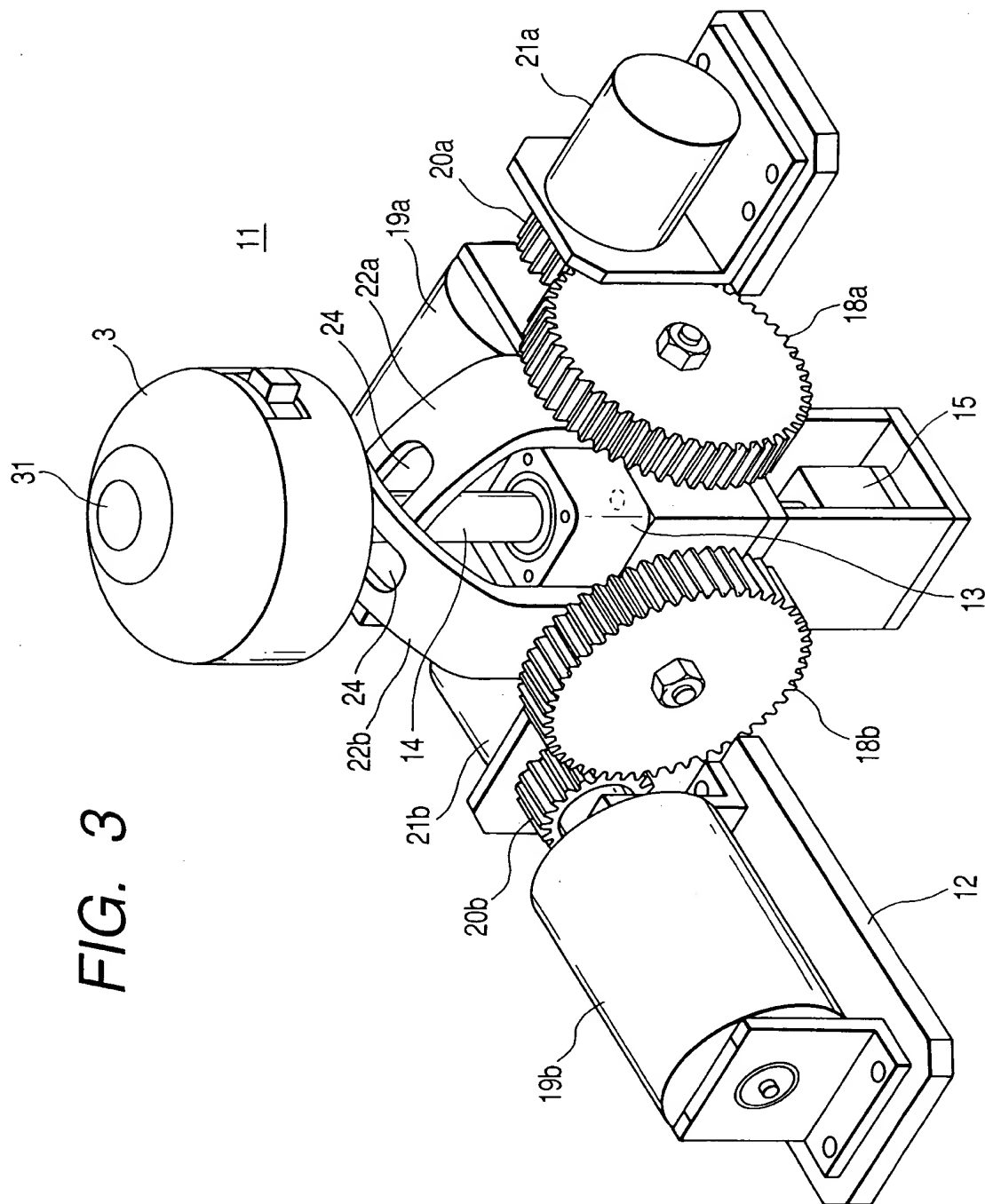


FIG. 2



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FIG. 3



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FIG. 4

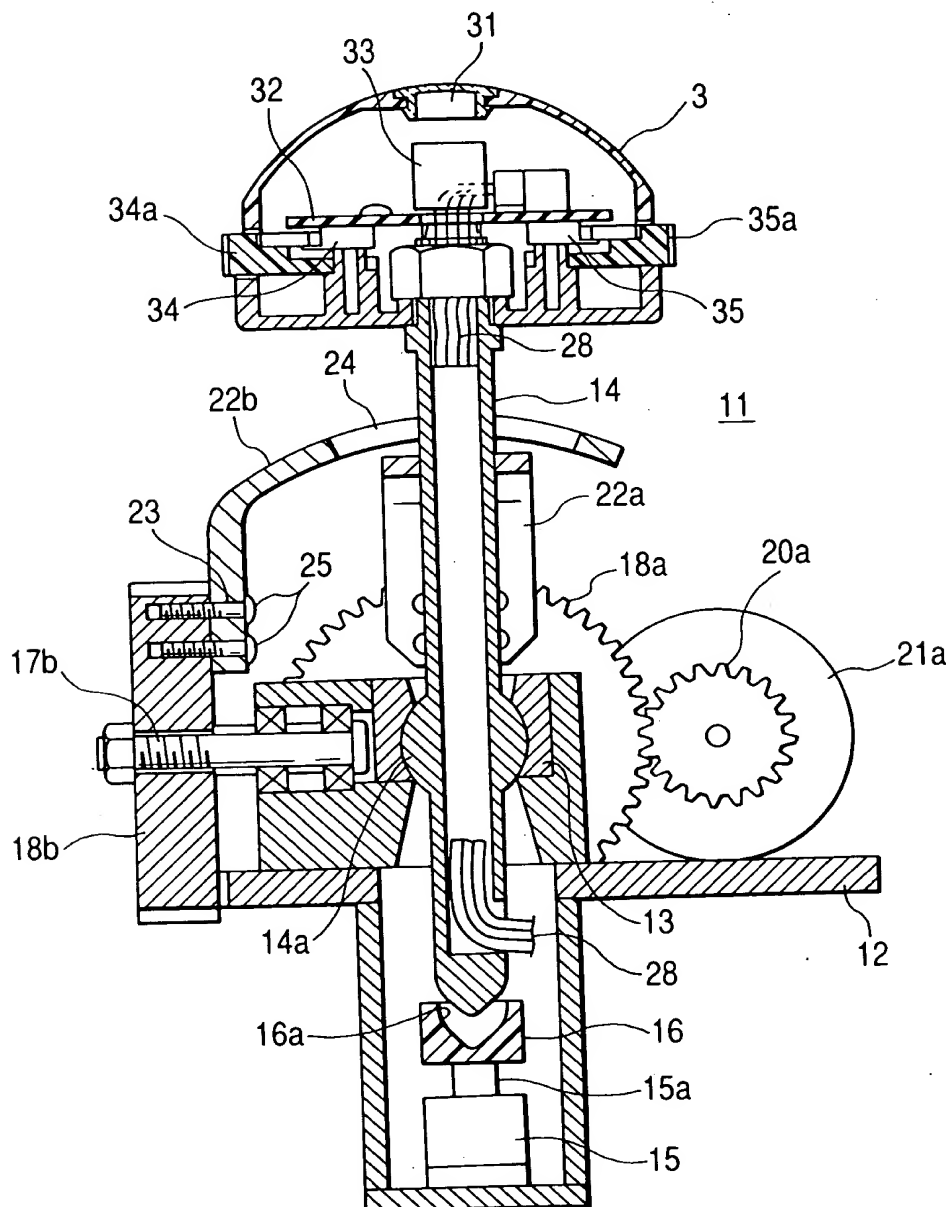
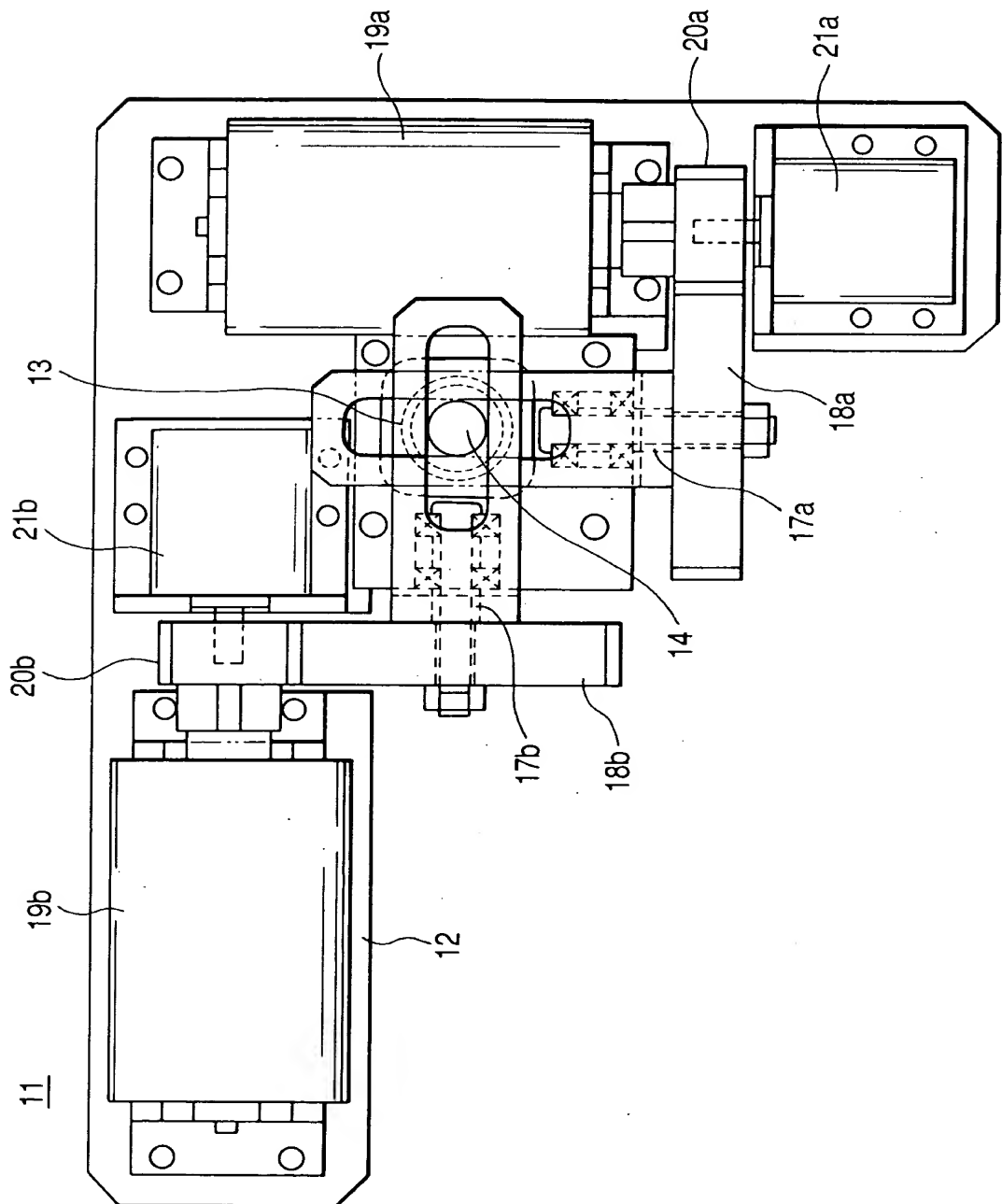


FIG. 4

FIG. 5

FIG. 5



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*FIG. 6*

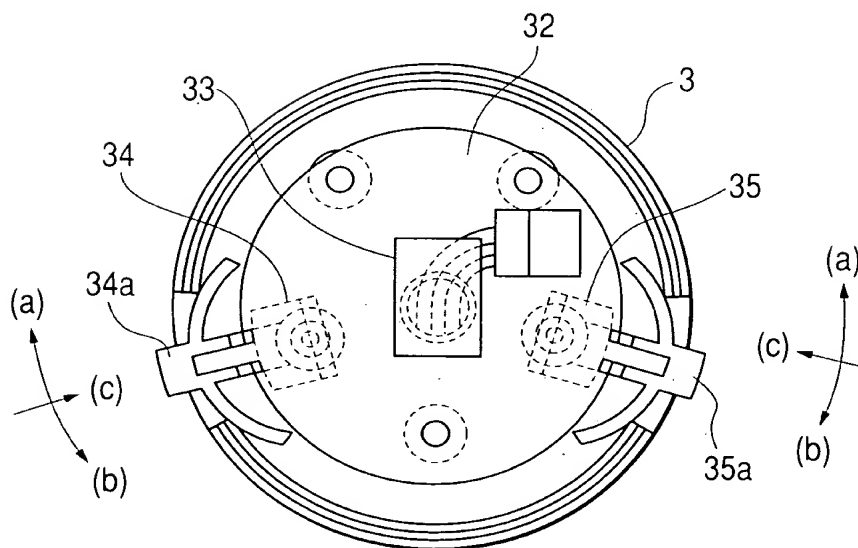


FIG. 7A

MENU

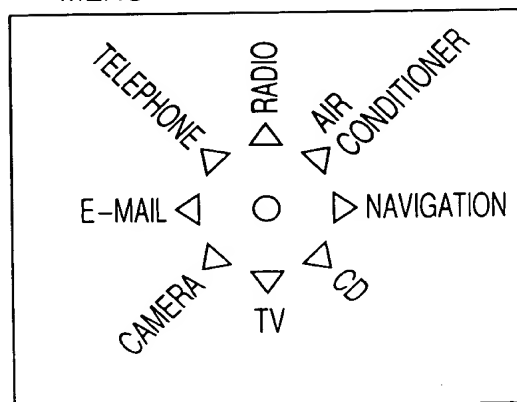


FIG. 7B

MOVABLE DIRECTIONS OF  
 MANUAL MANIPULATOR

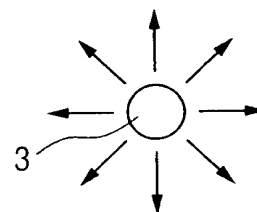


FIG. 8A

MENU

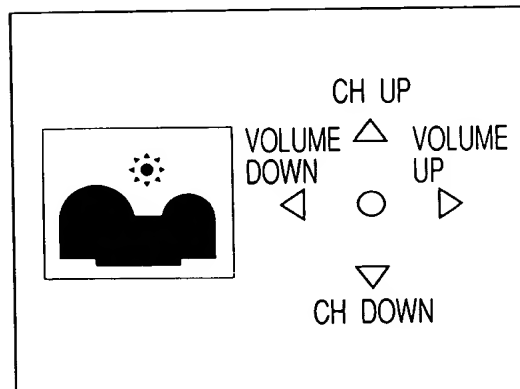


FIG. 8B

MOVABLE DIRECTIONS OF  
 MANUAL MANIPULATOR

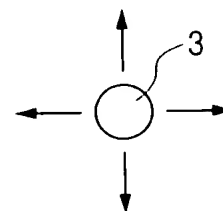
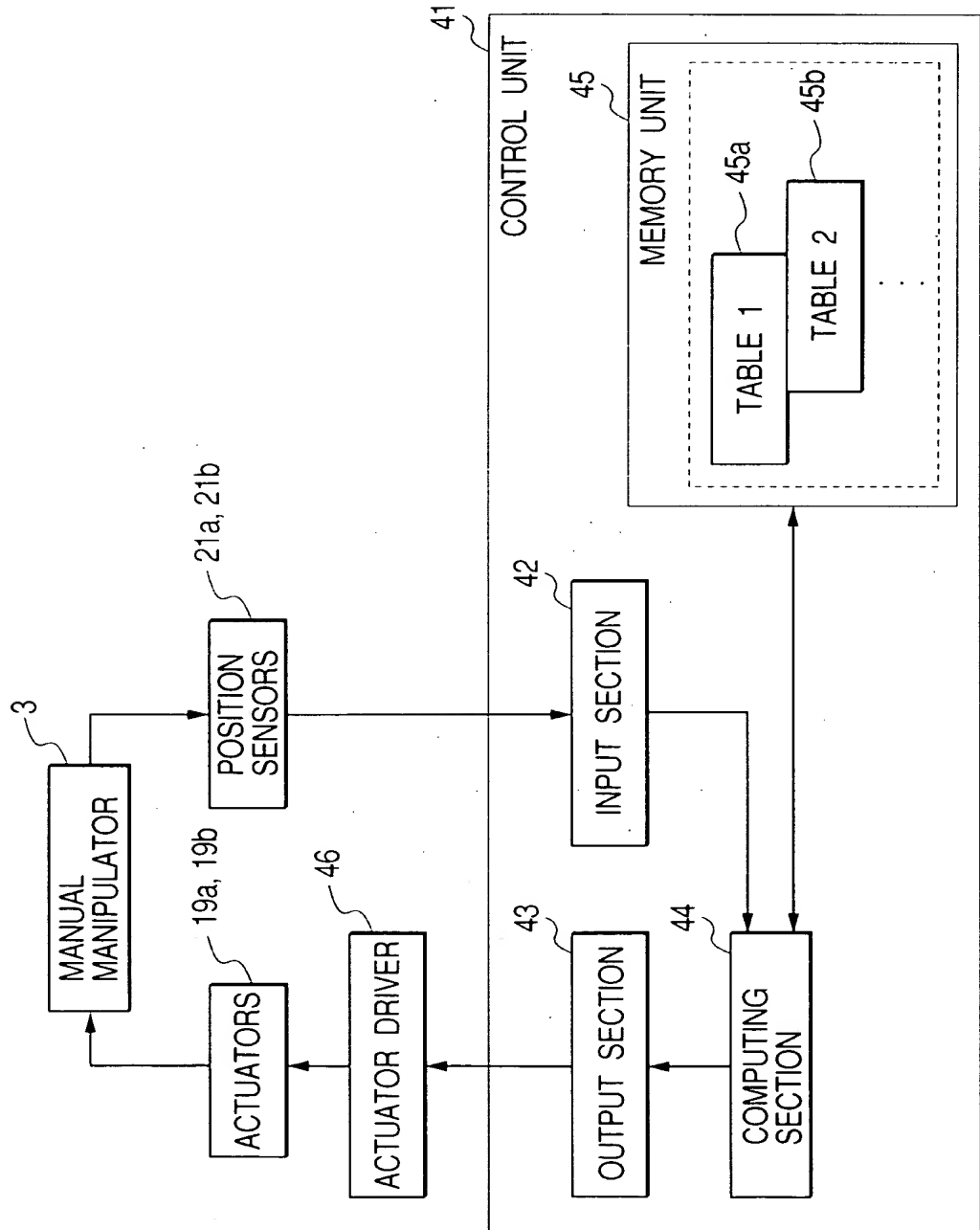


FIG. 7A

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FIG. 9



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*FIG. 10*

Y DIRECTION  
 ↑  
 +  
 -

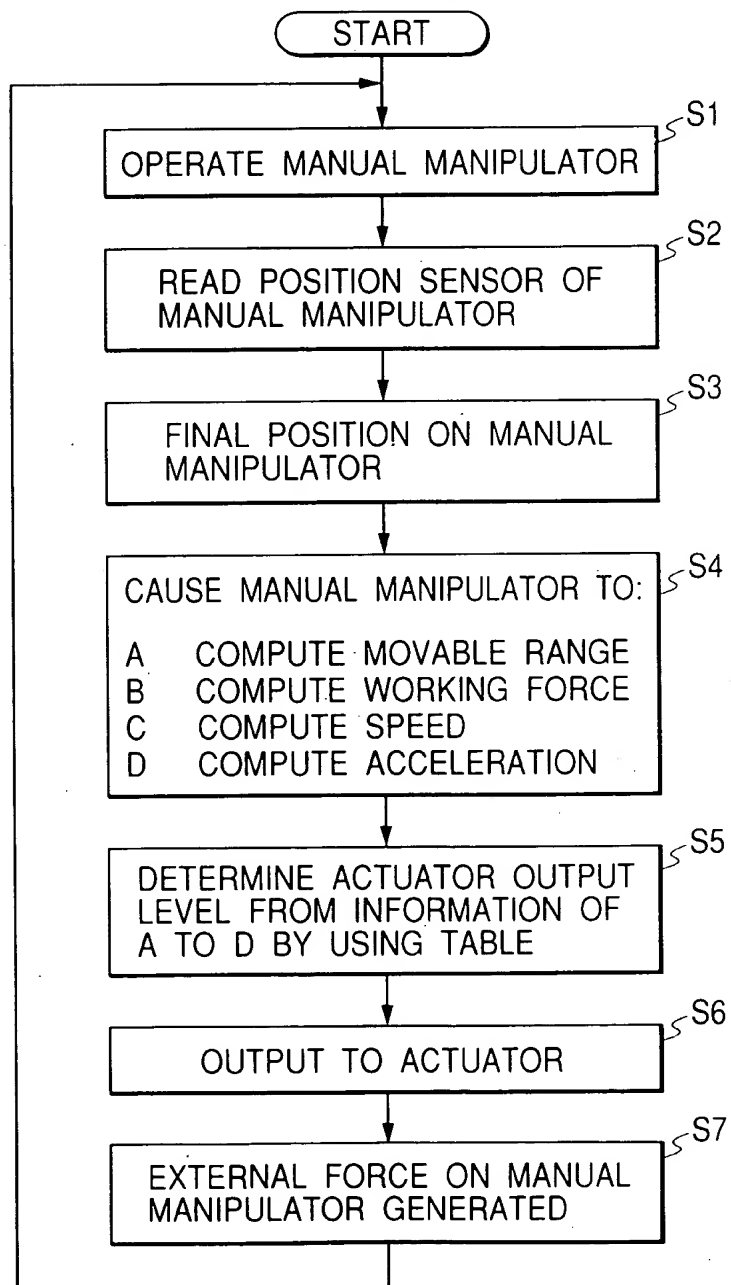
X0	X1	X2	X3	X4	X5	X6	X7	
+1 -1	+1 0	+1 0	0 0	0 0	-1 0	-1 0	-1 -1	Y7
0 -1	+1 -1	+1 0	0 0	0 0	-1 0	-1 -1	0 -1	Y6
0 -1	0 -1	+1 -1	0 0	0 0	-1 -1	0 -1	0 -1	Y5
0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	Y4
0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	Y3
0 +1	0 +1	+1 +1	0 0	0 0	-1 +1	0 +1	0 +1	Y2
0 +1	+1 +1	+1 0	0 0	0 0	-1 0	-1 +1	0 +1	Y1
+1 +1	+1 0	+1 0	0 0	0 0	-1 0	-1 0	-1 +1	Y0

→  
 - X DIRECTION +



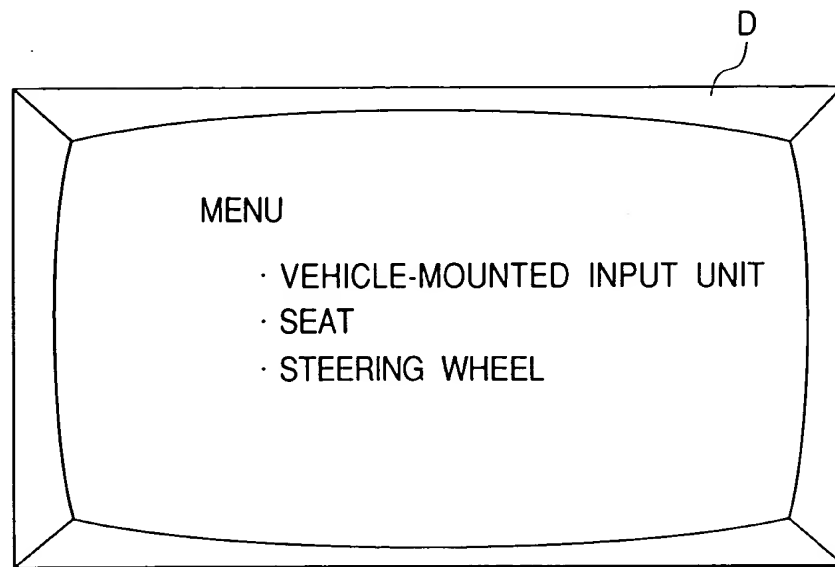
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**FIG. 11**

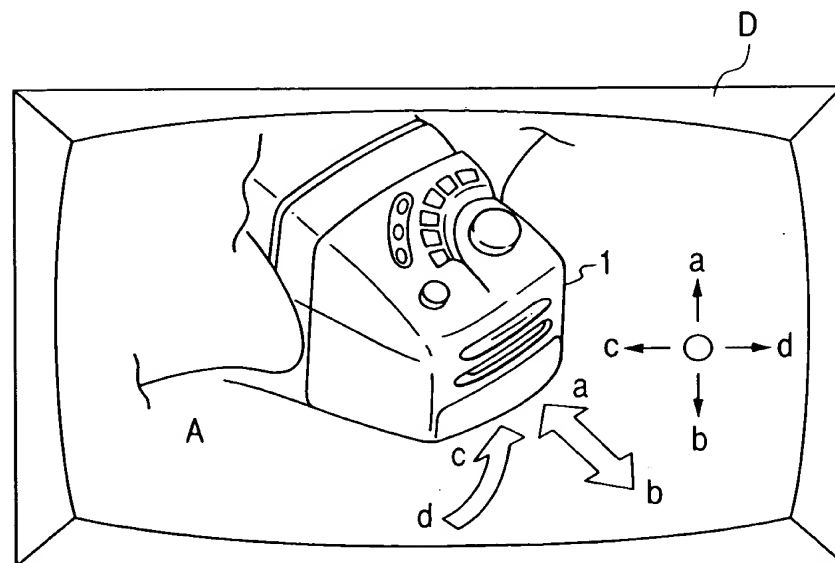


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*FIG. 12*

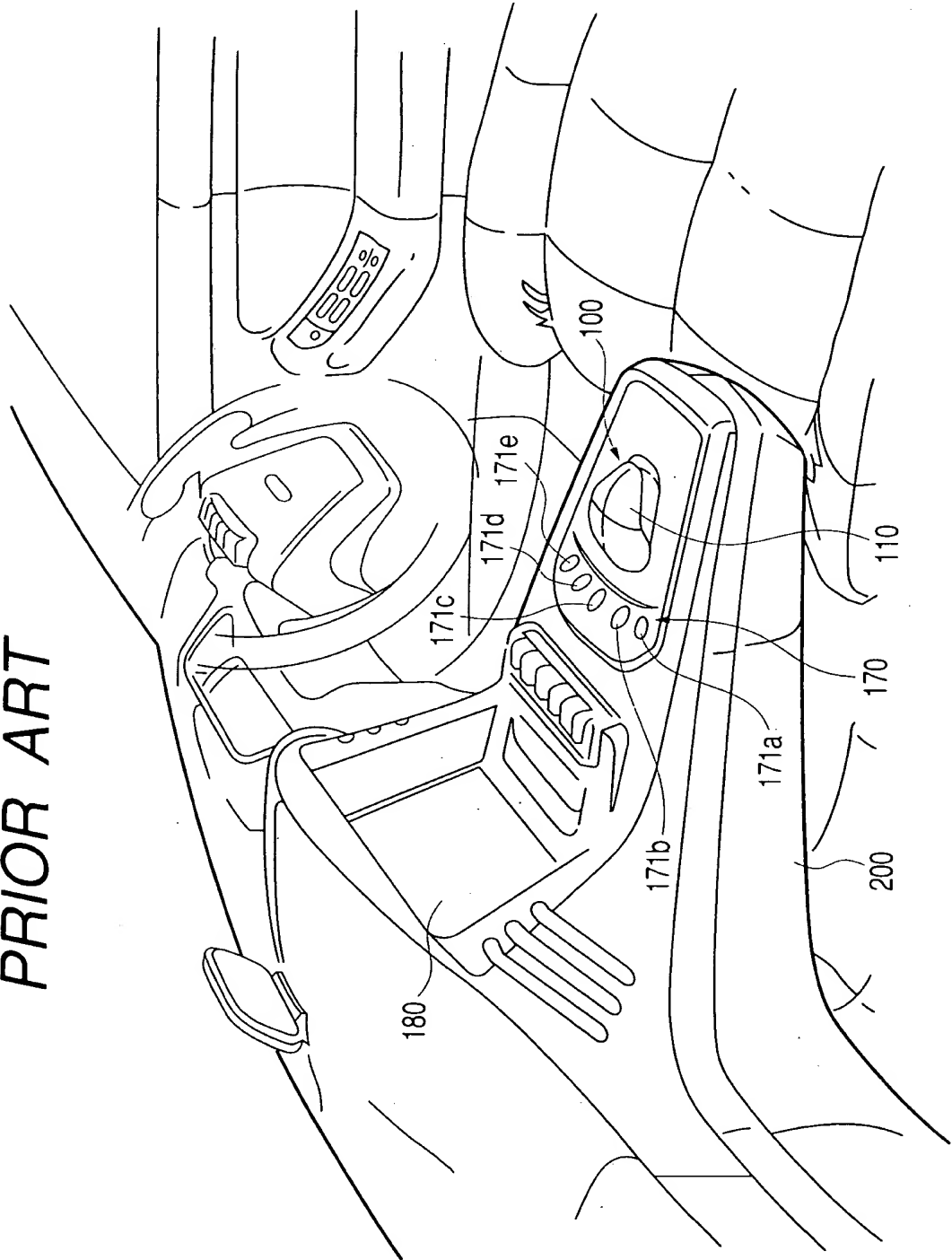


*FIG. 13*



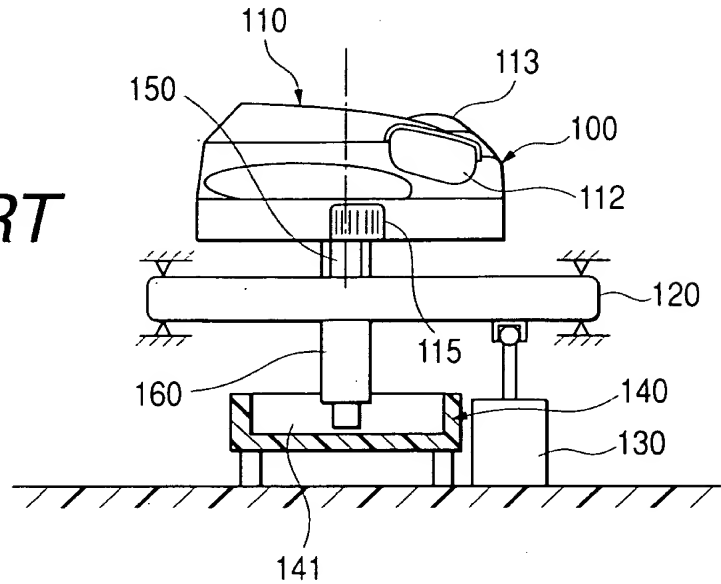
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FIG. 14  
PRIOR ART

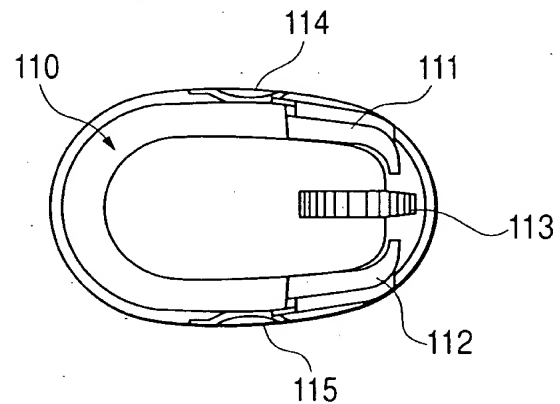


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**FIG. 15**  
**PRIOR ART**



**FIG. 16**  
**PRIOR ART**



**FIG. 17**  
**PRIOR ART**

